REMARKS

Claim 1 is rejected under 35 USC 103a as being unpatentable over Gu (US PUB. 2003/0072393) in view of Darabi et al. (US PAT. 6,968,019 hereinafter "Darabi")

Applicant asserts that claim 1 should not be found unpatentable over Gu in view of Darabi because there are features of claim 1 of the present invention not disclosed by either Gu and Darabi. In particular, applicant asserts that neither Gu nor Darabi teach "at least one first calibration device for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals", as is claimed in claim 1 of the present invention.

The Examiner stated (see OA mailed 05/05/2006) that "Gu differs from the claimed invention in not specifically teaching at least one first calibration device for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals; and the at least one first calibration device for processing the pair of quadrature signals. However, Darabi teaches at least one first calibration device for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals (Fig.1 col. 3 lines 15-30); and the at least one first calibration device for processing the pair of quadrature signals (Fig.1 col. 3 lines 15-30)".

Applicant notes that the Examiner did not specifically point out exactly which element in Fig.1 of Darabi the Examiner interprets to be the "at least one first calibration device for reducing DC components of the in-phase IF signals and the quadrature-phase IF signals". Inspection of col. 3 lines 15-30 does not specify any device "for reducing DC components of the in-phase IF signals and quadrature-phase IF signals". Applicant assumes that the Examiner has interpreted the RC calibration circuit 13 to be the at least one first calibration device; however, applicant points out that the functionality of the RC calibration circuit 13 taught by Darabi is very different than that claimed by the present invention. In particular, Darabi teach in col. 3 lines 15-30, "An RC calibration 13 circuit monitors process variation and mismatch variations and tunes the receiver to avoid spurious signals. In one embodiment, the RC calibration 13 calibrates all the active resistors and capacitors to some reference frequency that has a well defined behavior." Applicant notes that such functionality is different and not equivalent to reducing DC components of the in-phase IF signals and the

quadrature-phase IF signals as claimed in claim 1 of the present invention regarding the at least one first calibration device. For at least this reason, applicant asserts that claim 1 should not be found unpatentable over Gu in view of Darabi because the claimed element "at least one calibration device for reducing DC components of the in-phase signals and the quadrature-phase IF signals" is not disclosed by either Gu and Darabi. Therefore, the combination of Gu and Darabi does not result in the present invention. Reconsideration of claim 1 is respectfully requested. As claims 2-4 are dependent on claim 1, if claim 1 is found allowable, so too should dependent claims 2-4.

Claims 2-4 are rejected under 35 USC 103a as being unpatentable over Gu (US PUB. 2003/0072393) in view of Darabi et al. (US PAT. 6,968,019 hereinafter "Darabi") as applied to claim 1 above, and further in view of Wu et al. (US PAT 6,987,966 hereinafter, "Wu")

Applicant points out that currently amended claim 2-4 are dependent on claim 1, which is believed to be allowable for at least the above-stated reasons. Therefore, claims 2-4 should also be allowable for at least the same reasons. Reconsideration of claims 2-4 is respectfully requested.

Claims 5-6 are rejected under 35 USC 103a as being unpatentable over Gu (US PUB. 2003/0072393) in view of Wu et al. (US PAT. 6,987,966 hereinafter "Wu")

Applicant asserts that claim 5 should not be found unpatentable over Gu in view of Wu because there are features of claim 5 of the present invention not disclosed by either Gu and Wu. In particular, applicant asserts that neither Gu nor Wu teach "at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer", as is claimed in claim 5 of the present invention.

The Examiner stated (see OA mailed 05/05/2006) that "Gu differs from the claimed invention in not specifically teaching at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer. However,

Wu teaches at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer (col. 25 lines 19-22)."

Applicant notes that the Examiner did not specifically point out exactly which element in col. 25 lines 19-22 of Wu the Examiner interprets to be the "at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer". Inspection of col. 25 lines 19-22 does not specify any device for "erasing DC offset generated by the mixer". In particular, col. 25 lines 19-22 of Wu simply states, "The first major spurs out of downconversion process is at 4 times the IF frequency. A self calibrated 4 fs polyphase filter can be used after the complex IF mixers to reduce the spurious and improve the linearity of the demodulator." Applicant therefore assumes that the Examiner has interpreted the polyphase filter to be the at least one second calibration device; however, applicant points out that Gu to does not teach that the polyphase filter is for erasing the DC offset as is claimed in claim 5 of the present invention. Applicant notes that "reduce the spurious" refers to spurious signals, which are not equivalent to DC offset as DC offset can be a constant DC offset whereas spurious signals are sudden changes away from the normal value. For at least this reason, applicant asserts that claim 5 should not be found unpatentable over Gu in view of Wu because neither Gu nor Wu disclose "at least one second calibration device electrically connected to the corresponding mixer for erasing DC offset generated by the mixer", as is claimed in claim 5 of the present invention. Reconsideration of claim 5 is respectfully requested. As claims 6-8 are dependent on claim 5, if claim 5 is found allowable, so too should dependent claims 6-8.

Claims 7-11 are rejected under 35 USC 103a as being unpatentable over Gu (US PUB. 2003/0072393) in view of Darabi et al. (US PAT 6,968,019 hereinafter, "Darabi") as applied to claims above, and further in view of Wu et al. (US PAT 6987,966 hereinafter, "Wu")

Applicant asserts that claim 9 should not be found unpatentable over Gu in view of Darabi and further in view of Wu because there are features of claim 9 of the present

invention not disclosed by either Gu, Darabi, or Wu. In particular, applicant asserts that Gu, Darabi, nor Wu teach "a calibration device for processing the pair of quadrature signals", as is claimed in claim 9 of the present invention.

The Examiner stated (see OA mailed 05/05/2006) that "Gu differs from the claimed invention in not specifically teaching a calibration device for processing the pair of quadrature signals. However, Darabi teaches a calibration device for processing the pair of quadrature signals (col. 3 lines 15-30)."

Applicant notes that the Examiner did not specifically point out exactly which element in col. 3 lines 15-30 of Darabi the Examiner interprets to be the "a calibration device for processing the pair of quadrature signals". Inspection of col. 3 lines 15-30 does not specify any device "for processing the pair of quadrature signals". Applicant assumes that the Examiner has interpreted the RC calibration circuit 13 to be the calibration device; however, applicant points out that the functionality of the RC calibration circuit 13 taught by Darabi is very different than that claimed by the present invention. In particular, Darabi teach in col. 3 lines 15-30, "An RC calibration 13 circuit monitors process variation and mismatch variations and tunes the receiver to avoid spurious signals. In one embodiment, the RC calibration 13 calibrates all the active resistors and capacitors to some reference frequency that has a well defined behavior." Applicant notes that such functionality is different and not equivalent to processing the pair of quadrature signals as claimed in claim 9 of the present invention regarding the calibration device. In particular, the RC calibration circuit 13 is for calibrating active resistors and capacitors not processing the pair of quadrature signals. For at least this reason, applicant asserts that claim 9 should not be found unpatentable over Gu in view of Darabi and Wu because the claimed element "a calibration device for processing the pair of quadrature signals" is not disclosed by either Gu, Darabi or Wu. Therefore, the combination of Gu, Darabi, and Wu does not result in the present invention. Reconsideration of claim 9 is respectfully requested. As claims 10-11 are dependent on claim 9, if claim 9 is found allowable, so too should dependent claims 10-11.

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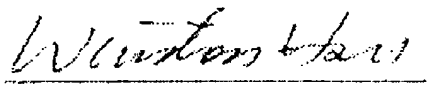

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